PTO/SB/08 (08-00)

900

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act number.

uction Act of 195, no persons are required to respond to a collection of information unless it contains a valid OMB control

Substitute for form 1449B/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Date Submitted: July 24, 2002

(use as many sheets as necessary)

Sheet 1 of 3

	Compl t if Known	BECEIVED
Application Number	09/766,678	HEULIVEL
Filing Date	01/23/2001	1 1 2000
First Nam d Inventor	Axel ULLRICH et al.	AUG 1 4 2002
Group Art Unit	1647	
Examiner Name	Lorrainne Spector Tr	CH CENTER 1600/2
Attorney Docket Number	038602-1082	CH CENTER 1000/2

U.S. PATENT DOCUMENTS						
Examiner Cite Initials* No.1		U.S. Patent I	Document		Date of Publication of	Pages, Columns, Lines, Where Relevant
	Number	Kind Code ² (if known)	Name of Patentee or Applicant of Cited Document	Cited Document MM-DD-YYYY	Passages or Relevant Figures Appear	
VK)	A1	5,185,438		Lemishka	02/08/93	
01	A2	5,712,395		App et al.	01/27/98	
	A3	5,763,441		App et al.	06/09/98	
	A4	5,766,860		Terman et al.	06/16/98	
-	A5	5,792,771		App et al.	08/11/98	
	A6	5,792,783		Tang et al.	08/11/98	
V	A7	5,869,742		Köster et al.	02/09/99	

	FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Fo Office ³	reign Patent D Number ⁴	Oocument Kind Code ⁵ (if known)	Name of Patentee or Applicant of Cited Documents	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
.//	A8	WO	92/03459			03/05/92		
	A9	WO	92/14748			09/03/92		
	A10	WO	92/17486			10/15/92		
	A11	WO	94/10292			05/11/94		
	A12	WO	95/21868			08/17/95		
V	A13	WO	96/20403			07/04/96		

	OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶		
1	A14	Breier et al., "Expression of Vascular Endothelial Growth Factor During Embryonic Angiogenesis and Endothelial Cell Differentiation," <u>Development</u> 114:521-532, 1992.			
	A15	Conn et al., "Purification of a Glycoprotein Vascular Endothelial Cell Mitogen From a Rat Glioma-derived Cell Line," Proc. Natl. Acad. Sci. USA 87:1323-1327, 1990.			
V	A16	Connolly et al., "Human Vascular Permeability Factor. Isolation from U937 Cells," <u>The Journal of Biological Chemistry</u> , Vol. 264, No. 33, p.20021, (25 November 1989).			

		i control of the cont
Examiner Signature . Spector	Date Considered	11/13/02

^{*}EXAMINER: Intial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

Paper#9

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08 (08-00)

1900

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE Under the Paperwork Actuation Act 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

Date Submitted: July 24, 2002

(use as many sheets as necessary)

Sheet 2 of 3

	Compl t if Known	RECEIVED
Application Numb r	09/766,678	ULOCIACI
Filing Date	01/23/2001	440 4 4 0000
First Nam d Inventor	Axel ULLRICH et al.	AUG 1 4 2002
Group Art Unit	1647	
Examiner Name	Lorrainne Spector TD	CH CENTER 1600/
Attorney Docket Number	038602-1082	OIT OLIVILIT 10001

		OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶
	A17	De Vries et al., "The fms-Like Tyrosine Kinase, a Receptor for Vascular Endothelial Growth Factor," Science 255:989-991, 1992.	
	A18	Ferrara et al., "Pituitary Follicular Cells Secrete a Novel Heparin-Binding Growth Factor Specific for Vascular Endothelial Cells," <u>Biochem. Biophys. Res. Comm.</u> 161:851-858, 1989.	i i
	A19	Ferrara et al., "The Vascular Endothelial Growth Factor Family of Polypeptides," <u>J. Cell Biochem</u> . 47:211-218, 1991.	
	A20	Gospodarowicz et al., "Isolation and Characterization of a Vascular Endothelial Cell Mitogen Produced by Pituitary-Derived Folliculo Stellate Cells," <u>Proc. Natl. Acad. Sci. USA</u> 86:7311-7315, 1989.	
	A21	Kashles et al., "A Dominant Negative Mutation Suppresses the Function of Normal Epidermal Growth Factor Receptors by Heterodimerization," Mol. Cell. Biol. 11:1454-1463, 1991.	
	A22	Klagsburn et al., "Regulators of Angiogenesis" <u>Annu. Rev. Physiol.</u> 53:217-39, 1991.	
	A23	Leung et al., "Vascular Endothelial Growth Factor Is a Secreted Angiogenic Mitogen," <u>Science</u> 246:1306-1309, 1989.	
	A24	Li et al., "Monoclonal antibodies to recombinant human vascular endothelial growth factor (rHuVEGF)," Journal of Cellular Biochemistry, vol. Suppl., no. 15F, p.251, (1991).	
	A25	Livneh et al., "Reconstitution of human epidermal growth factor receptors and its deletion mutants in cultured hamster cells," <u>J. Biol. Chem.</u> 261(27):12490-12497, 1986.	
	A26	Maglione et al., "Isolation of Human Placental cDNA Coding For a Protein Related to the Vascular Permeability Factor," <u>Proc. Natl. Acad. Sci. USA</u> 88:9267-9271, 1991.	
	A27	Matthews et al., "A Receptor Tyrosine Kinase cDNA Isolated From a Population of Enriched Primative Hematopoietic Cells and Exhibiting Close Genetic Linkage to <i>c-kit</i> ," <u>Proc. Natl. Acad. Sci. USA</u> 88:9026-9030, 1991.	1
	A28	McCormick, "Human gene therapy: The first round," Biotechnology 3(8):689-693, 1985.	
	A29	McMahon et al., "Protein kinase inhibitors: structural determinants for target specificity," <u>Current Opinions in Drug Discovery and Development</u> 1(2):131-146, 1998.]
	Ā30	Millauer et al., "High affinity VEGF binding and developmental expression suggest Flk-1 as a major regulator of vasculogenesis and angiogenesis," Cell 72:835-846, 1993.	
J	A31	Mitchell et al., "Recombinant Expression and Characterization of the 121 Amino Acid Form of Vascular Endothelial Growth Factor (VEGF)," <u>J. Cell. Biochem., Keystone Symposia on Molecular and Cellular Biology</u> , Supplement 15C, Excerpt G207, 1991.	

Examiner Signature	J. Sactor	Date Considered	11/13/0-

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

PTO/SB/08 (08-00)

900

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

ction Act of 1995, newersons are required to respond to a collection of information unless it contains a valid OMB control Under the Paperwork Redu number

Substitute for 1991 7AB TO INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Date Submitted: July 24, 2002

(use as many sheets as necessary)

Sheet

	Complete if Known	RECEIVED
Application Number	09/766,678	HEOLIVE
Filing Dat	01/23/2001	AUC 1 4 2002
First Nam d Inv ntor	Axel ULLRICH et al.	AUG 1 4 2002
Group Art Unit	1647	
Examiner Name	Lorrainne Spector T	CH CENTER 1600/
Attorney Docket Number	038602-1082	On Centre 1

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS						
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁶			
A	A32	Nicolas et al., "Retroviral Vectors," <u>Vectors</u> , Chapter 25, pp. 493-494, 1987.				
	A33	Orkin et al., "Report and Recommendations of the panel to assess the NIH investment in research on gene therapy", December 7, 1995.				
	A34	Plate et al., "Up-Regulation of Vascular Endothelial Growth Factor and Its Cognate Receptors in a Rat Glioma Model of Tumor Angiogenesis," <u>Cancer Research</u> 53:5822-5827, 1993.				
	A35	Prywes et al., "Mutations in the cytoplasmic domain of EGF receptor affect EGF binding and receptor internalization," EMBO J. 5(9):2179-2190, 1986.				
	A39	Risau et al., "Changes in the Vascular Extracellular Matrix During Embryonic Vasculogenesis and Angiogenesis," <u>Development Biology</u> 125:441-450, 1988.				
	A37	Sarzani et al., "A Novel Endothelial Tyrosine Kinase cDNA Homologous To Platelet-Derived Growth Factor Receptor cDNA" Biochem. Biophys. Res. Comm. 186:706-714, 1992.				
	A38	Spivak-Kroizman et al., "Heterodimerization of c-erbB2 With Different Epidermal Growth Factor Receptor Mutants Elicit Stimulatory or Inhibitory Responses," J. Biol. Chem. 267:8056-8063, 1992.				
	A39	Strawn et al., "Flk-1 as a Target for Tumor Growth Inhibition," Cancer Research 56:3540-3545, 1996.				
	A40	Tartaglia et al., J. Biol. Chem. 267(7), 4304-4307, March 5, 1992.				
	A41	Terman et al., "Identification of a New Endothelial Cell Growth Factor Receptor Tyrosine Kinase," Oncogene 6:1677-1683, 1991.				
	A42	Terman et al., "Identification of the KDR Tyrosine Kinase as a Receptor for Vascular Endothelial Cell Growth Factor," <u>Biochem. Biophys. Res. Comm.</u> 187:1579-1586, 1992.				
	A43	Traxler, "Tyrosine kinase inhibitors in cancer treatment (Part II)," Exp. Opin. Ther. Patents 8(12):1599-1625, 1998.				
	A44	Ueno et al., J. Biol. Chem. 267(3):1470-1476, January 25, 1992.				
	A45	Ueno et al., Science 252:844-848, May 10, 1991.				
V	A46	Ullrich et al., "Signal transduction by receptors with tyrosine kinase activity", Cell 61:203-212, 1990.				

Examiner Signature	Spector	Date Considered	11/13/02

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, D.C. 20231.

^{*}EXAMINER: Initial if perence considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. 2See attached Kinds of U.S. Patent Documents. 3Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). *For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. *Applicant is to place a check mark here if English language Translation is attached.